

PRESENTER ABSTRACTS



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NCI Measurement Guide for Adolescent Tobacco Researchers and Clinicians

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*Presenter: Johanna M. Lewis-Esquerre, Ph.D., Research Associate,
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The field of youth tobacco research requires standardized and psychometrically sound measures to accurately examine the efficacy of tobacco interventions for youth. Two years ago, Dr. Cathy Backinger and others at NCI recognized the need for a guide to existing adolescent tobacco measures in order to achieve consistency and standards of measurement across studies. A priority for the guide was that it be useful to researchers, clinicians, and other practitioners for implementing, evaluating, and enhancing tobacco use interventions. In this presentation, Dr. Colby will describe the process by which an NCI-funded Measurement Guide has been developed, including the methods for selecting measures to be included and the evaluation process. This will be followed by an overview by Dr. Lewis-Esquerre of the content and characteristics of the measures obtained and a description of content areas that require expansion in the Guide. Information on when and how a preliminary version of this Web-based Guide may be accessed will be provided, along with guidance for prospective authors of future contributed measures. Finally, the presenters will offer pragmatic recommendations related to how youth tobacco researchers can help to enhance the quality of instrumentation in this field.

Helping Young Smokers Quit: Prevalence and Characteristics of Youth Cessation

Presenter: Susan J. Curry, Ph.D., Director, Health Research and Policy Centers, University of Illinois at Chicago, on behalf of the HYSQ Phase I team

Teens and young adults use tobacco at rates as high as or higher than adults. Ninety percent of teen smokers express interest in quitting smoking, and nearly 75 percent have made a quit attempt. While a growing number of teen cessation programs are available, there is currently no way to determine, even approximately, how many programs exist, where they are located, what services they offer, what populations they serve, or by what means they provide treatment. Moreover, only a handful of such programs have been evaluated.

The Helping Young Smokers Quit (HYSQ) initiative is a 4-year, two-phase project designed to address the dire need to develop and disseminate effective, developmentally appropriate cessation programs for the substantial numbers of adolescents who smoke and try unsuccessfully to quit. Phase I of the HYSQ initiative was developed to identify and characterize existing smoking cessation programs for youth in a representative sample of 408 counties in the United States. Counties were stratified by four criteria (i.e., urbanization, socio-economic status, youth smoking prevalence, and state-level tobacco control expenditures) and selected with probability proportion to size (i.e., youth population, 10-24 years old). Through a snowball sampling process starting in four county “sectors” (i.e., departments of health, departments of education, voluntary organizations, and other known program supporters), program informants were identified within each of the sampled counties and a 45-minute telephone-administered survey was completed.

The Helping Young Smokers Quit initiative is developing the largest and most comprehensive database on existing youth smoking cessation programs in the United States. This presentation will summarize snowball sampling results from more than 9,000 key informant interviews and describe program characteristics from 398 surveys that have been completed through May 2003.

Community Advocacy for Tobacco Policy Compliance: Smoke-Free Air For Everyone

*Presenter: Jim Davis, Ph.D., Research Assistant Professor,
Smoke-Free Air for Everyone (SAFE), University of Missouri*

The SAFE Project (Smoke-Free Air For Everyone) was initiated in 48 rural Missouri communities to examine the effectiveness of two approaches to community-based advocacy for clean indoor law compliance and the effects that such compliance would have on youth smoking initiation. The randomized community trial assigned 16 communities to a social action approach to advocacy, 16 communities to a locality development approach, and 16 communities to a control group. The SAFE Project baseline and followup assessments of business clean indoor air compliance and youth smoking were completed in 1999 and 2002, respectively. During the 3-year intervention period, community coalitions were created and multiple activities were implemented in the 32 intervention communities. A third round of evaluation is planned for 2004 to examine the long-term impacts of community advocacy on clean indoor air compliance and the effect of clean indoor air compliance on youth smoking behavior. Analysis results indicate that the locality development approach to clean indoor air advocacy was not effective. However, after adjustments for covariates, the social action approach was shown to be effective in increasing business posting of no-smoking signs ($p=.07$) and increasing overall compliance with the state clean indoor air law ($p=.10$). Other factors that were important in predicting overall compliance included whether the community was a college town, the percent of businesses out of business in the past 3 years, whether the parent company had a corporate clean indoor air policy, whether the local community had a clean indoor ordinance, and whether customers advocated for the right to smoke in the business. Ongoing analyses are examining the effect of clean indoor air compliance and other factors on youth smoking initiation.

Contextualizing Adolescent Tobacco Use

*Larry D. Jamner, Ph.D., and Carol K. Whalen, Ph.D.,
Department of Psychology and Social Behavior, University of California, Irvine*

*Presenter: Larry D. Jamner, Ph.D., Associate Professor,
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Little is known regarding patterns of tobacco consumption among adolescents as they progress from stages of non-use, initiation, experimentation, and regular use. Even among regular users, little is known about the basic dimensions of adolescent smoking—the who, where, when, and with whom. Selected findings from a 4-year longitudinal study designed to model the influences of situational/contextual and trait factors on the smoking behavior of adolescents in everyday settings will be presented. A second key focus to be discussed is the role of dispositional traits as they interact with situational cues and contexts in the development of tobacco dependence over the critical high school years.

Approximately 420 high school freshmen were enrolled in Project MASH (Monitoring of Adolescent Stress and Health). The study sample was stratified to include regular smokers, experimenters, have tried, and never smokers. Twice during their freshman and twice every year during their sophomore through senior years, these adolescents logged their cigarette consumption, activities, contexts, and moods every 30 (+10) minutes across 4-day intervals that included 2 weekday and 2 weekend days. They also supplied a saliva sample during each recording day. About 250 youth have completed 4 years of diary monitoring (7-8 data collection waves) with another 150 teens now in their third year of data collection. Over the course of the project, these teens have provided approximately 500,000 diary recordings and we have captured about 6,000 individual episodes of cigarette smoking. Environmental, social, and affective contexts were powerful determinants of youth cigarette smoking. Unexpectedly, more cigarettes were smoked in teens' homes than in any other context (27 percent), with 46 percent of these "at home" smoking episodes taking place while alone. Independent of environmental context, a substantial number of cigarettes smoked occurred while with friends (38 percent), boyfriend/girlfriend (12 percent) and family (8 percent). Interestingly, 20 percent of all smoking instances occurred while teens were alone. Mood states were also found to be powerful determinants of smoking. Temporal analyses of mood smoking linkages were conducted using Generalized Estimating Equations. Greater levels of anger, anxiety, sadness, and stress were linked to an increased probability (50 percent to 120 percent) of smoking in the subsequent (30 minutes) diaries. In contrast, greater levels of perceived control were linked to lowered likelihoods of smoking in subsequent diaries. Personality and psychopathology also emerged as important dispositional contexts for smoking. For example, the risks of smoking, urges to smoke, and alcohol intake were elevated in adolescents with depressive and externalizing (aggressive and delinquent) dispositions. ADHD characteristics were also associated with behavioral patterns and contexts that may promote vulnerability to nicotine dependence as well as peer deviancy training and unhealthy lifestyle behaviors more generally. Interestingly, a comparison of the smoking trajectories of ADHD youth who were medicated versus those unmedicated for their condition suggested that pharmacotherapy may serve to protect dysfunctional teens from tobacco use. Overall, the evidence from these studies has supported the hypothesis that there is a core group of individuals who have dispositional characteristics that channel them into smoking careers.

The findings emerging from this project suggest several translations for preventing the initiation of tobacco use. Perhaps prevention programs need to focus on home alone as well as peer contexts. The results also indicate that targeted prevention programs may be more cost-effective than one-size-fits-all approaches. Early training in affect regulation may reduce the appeal of substance use. Finally, effective treatment of childhood disorders such as ADHD may protect against smoking initiation and dependence.

Acute Nicotine Abstinence Effects in Adolescent Smokers

*Presenter: Suchitra Krishnan-Sarin, Ph.D., Assistant Professor,
Department of Psychiatry, Yale University School of Medicine*

Recent CDC reports indicate that 34.5 percent of adolescents in high school report current cigarette use, and of these approximately 60 percent report having made a quit attempt in the past 12 months (MMWR 2001). To date, we know very little about what maintains smoking behavior and makes quitting smoking so hard for adolescent smokers. Previous research in adult smokers has shown that abstinence effects like nicotine withdrawal as well as mood and cognitive changes are important in the maintenance of cigarette smoking (USDHHS, 1988). Retrospective evaluations indicate that like adults, adolescent smokers also report experiencing nicotine withdrawal symptoms when not smoking. However, the factors involved in maintenance of and relapse to smoking in adolescent smokers have not been systematically evaluated.

In order to better understand these factors, we recently completed a systematic prospective examination of bio-behavioral abstinence effects in male and female adolescent smokers including changes in nicotine withdrawal symptoms, cognition, responses to physical and psychological stressors, and pain tolerance during the first 48 hours of tobacco abstinence. One hundred and six adolescent male and female smokers and nonsmokers participated in two laboratory sessions, one outpatient session conducted when smokers were not abstinent from cigarettes and one 48-hour inpatient session during which smokers were required to be abstinent from cigarettes.

In this presentation, preliminary results will be presented with regard to changes in pain tolerance and cognition during acute tobacco abstinence. More specifically, female smokers experienced time-dependent decreases in cognitive responses during abstinence when compared with male and female nonsmokers. Conversely, male smokers experienced significant decrements in pain tolerance during abstinence, an effect that was not seen in female smokers. Results from evaluations of nicotine withdrawal symptoms and mood changes also will be presented. These results suggest that adolescent smokers experience abstinence effects when they quit smoking. However, there are significant gender differences in these tobacco abstinence effects that could mediate differences in ability to quit and relapse to tobacco use.

Adolescent Smoking Cessation in Dental Practices

*Harry Lando, Deborah Hennrikus, DeAnn Lazovich, and Eric Stafne, University of Minnesota
Raymond Boyle and Brad Rinda, HealthPartners Research Foundation*

Presenter: Harry Lando, Ph.D., Professor, Division of Epidemiology, University of Minnesota

We originally planned the current project primarily as a smoking cessation trial. We intended to enroll a limited number of susceptible never smokers partly as a pilot and partly to avoid identifying the tobacco use status of study participants. However, self-reported past 30-day smoking prevalence among adolescents surveyed (N = 1162) was only 13 percent, far less than we had expected from recent Minnesota survey data. We also encountered substantial problems in interviewing teens prior to their dental appointment.

We identified 6,031 adolescents 14 to 17 years of age who had previously scheduled routine dental hygiene visits based on a 6-month recall interval. However, only 3,845 of these adolescents scheduled a subsequent dental hygiene visit during study recruitment and only 1,162 completed a telephone survey. The primary losses from those scheduling dental visits were as follows: 357 ineligible, 330 appointment time duplicated a time slot filled by another teen who had completed an interview, 987 declined participation by post card, 312 declined by telephone, and 699 were not reached after four attempts. As a result, relatively few past 30-day smokers were available for intervention. We therefore modified our study design to include not only past 30-day smokers, but all adolescents at risk for smoking based both on the Pierce susceptibility items and on prior experimentation. Approximately 60 percent of those who completed the telephone survey were nonsusceptible never smokers.

Our final study sample was 344. We implemented a systems approach in which all subjects received brief anti-tobacco advice from dentists and dental hygienists or dental assistants. In addition, subjects randomly assigned to enhanced intervention were given motivational counseling by a study hygienist. Counseling was to include a face-to-face motivational interview at the time of the dental visit plus followup telephone support. Of 175 adolescents randomly assigned to counseling, only 115 actually received the counseling (this was due primarily to adolescents not showing up for dental appointments, canceling and not rescheduling, or not having time for the counseling session). Of the adolescents who were counseled, 67 percent received just the face-to-face motivational interview. Only 10 percent of the counseled adolescents received more than a single telephone call. Results failed to indicate a difference between study conditions either at 3- or 12-month followup. Based on intent to treat more than 90 percent of those who reported baseline past 30-day smoking were past 30-day smokers at 12 months. Reported past 30-day smoking among baseline susceptible nonsmokers in contrast was relatively low in both conditions and averaged less than 10 percent at 12-month followup. Despite the many technical and logistical challenges faced by this study, dental practices were very receptive. The study was constrained by a smaller than targeted sample size and less than optimal delivery of counseling. Given the logistical and implementation problems encountered in the current study, it would be premature to conclude that this type of intervention in dental practices is ineffective.

Primary Care Interventions for Teen Smokers

*Deborah J. Ossip-Klein, Ph.D., Jonathan Klein, M.D., M.P.H., and Scott McIntosh, Ph.D.,
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*Presenter: Deborah J. Ossip-Klein, Ph.D., Associate Professor,
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The 2000 Public Health Service Clinical Practice Guideline recommended that primary care providers deliver the 5A screening and intervention to their adolescent patients who smoke. This recommendation was based on expert consensus because relevant randomized controlled trials were not yet available. The current study provided such a trial.

A total of 101 primary care practices (47 family and 54 pediatric practices) were recruited in a six county area and randomized QNow (intervention) or QLater (usual care). Across all practices, over 8,000 adolescents were enrolled in an “Adolescent Health Behavior Survey.” At this initial telephone survey, 1,000 smokers were identified and followed at 3 and 12 months for determination of the impact of the intervention on smoking cessation. QNow practices received onsite CME training in delivering a 5A intervention to adolescent smokers, including referral to cessation adjuncts. Separate onsite sessions were conducted with clinicians (in delivering the intervention) and office staff (in setting up an office system to support the intervention). Preliminary analyses indicated that adolescents in QNow practices were more likely to be asked if they smoked and if they wanted to quit, and were more likely to be given something by their doctor to help them quit, suggesting that QNow practices were more likely to implement the Public Health Service Guideline in which they had been trained by the project. Preliminary adolescent cessation outcomes will be presented and methodological issues will be discussed.

A Quitline for Teen Smokers

Shu-Hong Zhu, Christopher Anderson, Gary Tedeschi, Cynthia Johnson, Michael Byrd, Sharon Cummins, Bradley Rosbrook, Elsa Gutiérrez-Terrell, University of California, San Diego

Presenter: Shu-Hong Zhu, Ph.D., Associate Professor, University of California, San Diego

Data on service utilization indicate that telephone quitlines can be a good way of reaching teen smokers. This presentation will examine a telephone counseling protocol for teen smokers and will address the issues of reach and efficacy. A total of 1,435 smokers aged 14-19 years who called the California Smokers' Helpline were randomized (by two age strata, <18 or not) into self-help or telephone counseling groups. The counseling program consisted of one pre-quit session and up to 6 followup sessions. All smokers were followed for 13 months. The results show that most teenagers in the program made a quit attempt at a rate slightly higher than that of adult smokers calling the quitline. The counseling significantly increased the prolonged abstinence rate up to 6 months. By 12 months, however, the difference between counseling and self-help groups reached only a marginal significance level. Further analyses showed that counseling effects were less likely to be sustained over time among the younger teens than among the older ones. The implication of these results for future interventions with teen smokers will be discussed.